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Vidifox® Document Camera

PV 700ST

USER MANUAL

Please read this User Manual thoroughly before you use the document camera. Keep the CD-ROM in a convenient place so you can use it quickly if you need to.

Please visit us at http://www.waninusa.com where you can get product support, the latest driver updates, and answers to frequently asked questions (FAQs) and technical questions.

PRECAUTIONS

NOTICES: PLEASE READ CAREFULLY BEFORE USE

- Use the document camera under the rated electric conditions.
- Do not place the document camera on any unstable surface. It may fall and cause injuries or damages.
- Do not place this device directly under sunlight or near heaters.
- Do not place this device near water.
- Keep the camera away from acid or alkali gas.
- Do not place this document camera in humid, dusty, windy or vibrant locations.
- The recommended operating environment is:

  Temperature: 32ºF-113ºF (0ºC--45ºC)

  Humidity: less than 75%
- Always unplug BEFORE cleaning the device. Use a damp soft-cloth for cleaning. Do not use volatile solvent.
- When this equipment functions abnormally, such as smoke, smell, noise, immediately unplug and call for professional assistance.
- Unplug the document camera or shut off the power when not in use.

Legal Notice

FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Compilation and Publication Notice

This manual has been compiled and published to cover the latest product's descriptions and specifications. The contents of this manual and the specifications of this product are subject to change without notice.

Wanin USA reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

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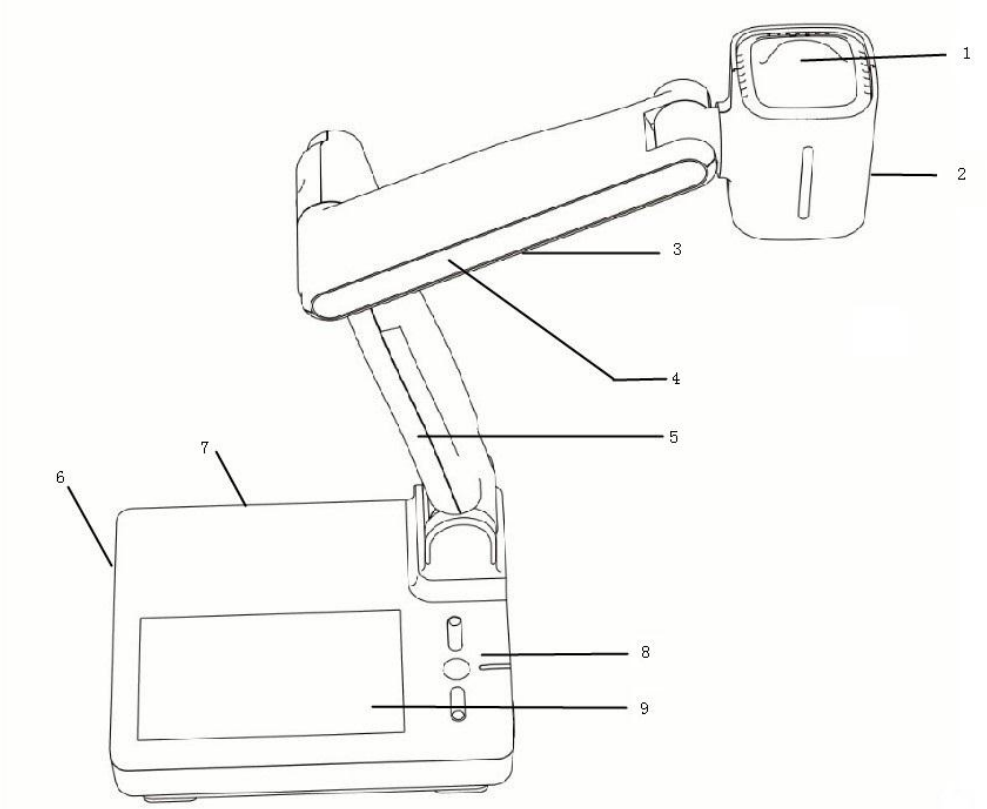
1. PARTS IDENTIFICATION



1. **Remote control IR receiver**
2. **Camera**
3. **LED light box**
4. **Upper mechanical arm**
5. **Main mechanical arm**
6. **Side panel**
7. **Back panel**
8. **Control panel**
9. **LCD**

2. CONTROL PANEL

1. **POWER**: Turn on/off the power.
2. **MENU ENTER**: a. Activate the on screen menu.
   b. Display the selected image in Image Recall mode.
3. **PC | CAM** : Press this button to toggle between the image from the Camera and the VGA input.
4. **AUTO** : a. Carry out automatic adjustment for focus, color and white balance.
   b. When in Image Recall mode, press this button to delete a selected image.
5. **ZOOM+/-**: Image zoom in and zoom out control.

3. Annotation Functions on Touch Screen

1、 : Enter to the setting menu

2、 : Active the function menu

1、

: Image split

2、

: Title function

3、

: Brightness+

4、

: Brightness-

5、

: Image freeze

6、

: Image rotate

7、

: Focus+

8、

: Focus-

9、

: Image capture

10、

: Text/Picture function

11、

: Lamp on/off

12、

: Image mirror

13、

: Picture-in-picture function

14、

: Negative/positive conversion

15、

: Image recall

16、

: Exit

3、 : Annotation function

1、 : Select writing pen

2、 : Select clear pen

3、 : Rubber

4、 : Delete all annotation

5、 : Cursor

6、 : Select the pen's color: Red

7、 : Select the pen's color:Yellow

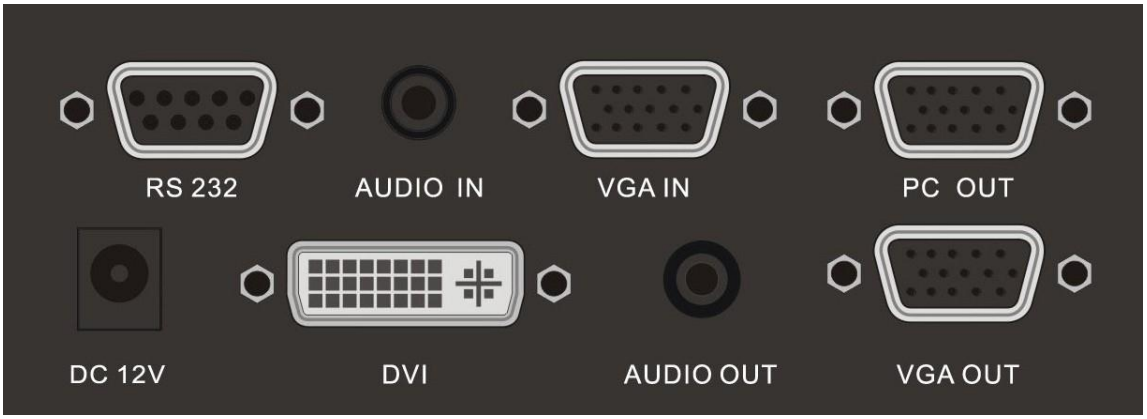
8、 : Select the pen's color:Blue

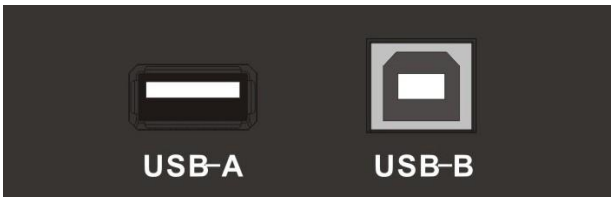
9、 : Select the thickness of writing

10、 : Select the thickness of writing

11、 : Select the thickness of writing

4. INPUTS AND OUTPUTS





1. **DC 12V**: Power input.
2. **RS 232**: Serial port, to control the document camera from a computer via this port.
3. **DVI**: DVI-A signal output.
4. **AUDIO OUT**: Audio output.
5. **VGA OUT**: VGA (RGB) signal output (15 pin D-SUB).
6. **PC OUT**: VGA (RGB) signal output (15 pin D-SUB).
7. **VGA IN**: VGA (RGB) signal input (15 pin D-SUB).
8. **AUDIO IN**: Audio input.
9. **USB-A**: Communicate with a USB device, such as a USB mouse or USB drive stick.
10. **USB-B**:
    a. In USB Video Mode, capture images or record video into a connected computer via provided software;
    b. In USB Disc Mode, download saved images to a connected computer.

5. REMOTE CONTROL

1. : Turn the document camera on or off**.**

2. **PC/CAM**: Press this button to toggle the output image between the document camera and VGA-IN.

3. **MIR**: Output right-and-left, up-and-down mirror image

4. **Output Format**: Press this button to activate the Output Format selection menu on screen. Use Up and Down arrows to select a desired output format, press **MENU ENTER** button to confirm.

5. **Arrow Buttons**:

   a. In Image Recall Mode, use arrow buttons to navigate the thumbnail images;

   b. In On-Screen Menu mode, use arrow buttons to select menu items (see details below).

6. **MENU ENTER**

   a. In Camera mode, press and hold the **MENU ENTER** button to enter the On-Screen Menu mode, then

      1. Use left and right arrow buttons to navigate the menu bar;
      2. Press **MENU ENTER** button briefly to enter the submenu;
      3. Use up and down arrows to select a function;
      4. Use left and right arrows to change parameters of the selected function.
      5. Press and hold **MENU ENTER** button at anytime to exit the On-Screen Menu mode.

   b. In Image Recall mode, press **MENU ENTER** button to display a selected image.

7. : Turn the LED light on or off.

8. : Activate the USB Mode selection menu on screen. Use Up and Down arrows to select USB Disc, USB Video, or Exit, press **MENU ENTER** button to confirm.

9. **Save**: Capture the current image. If a USB drive is connected to the document camera, the image will be saved to the USB drive; otherwise, the image will be saved to internal memory.

10. **RECALL**:

   a. In Camera Mode, press this button to enter the Image Recall mode.

      (1) When no USB drive is connected to the document camera, thumbnails of images in the internal memory will be displayed. Use PAGE+/- keys to navigate between pages; Use arrow keys to select a thumbnail; Press MENU ENTER button to display the selected image.

      (2) When a USB drive is connected to the document camera, contents of the USB drive will be displayed on screen. Use up and down arrows to select a folder or image file; Press MENU ENTER button to enter the selected folder or display the selected image.

   b. In Image Recall mode, press this button to go back to an upper level.

11. **Page +/-**: in Image Recall mode, navigate between pages of thumbnail images.

12. **AUTO DEL**:

   a. In Camera mode, carry out automatic adjustment for focus, color and white balance.

   b. In Image Recall mode, press this button to delete a selected image.

13. **TITLE:** Enable the title function.

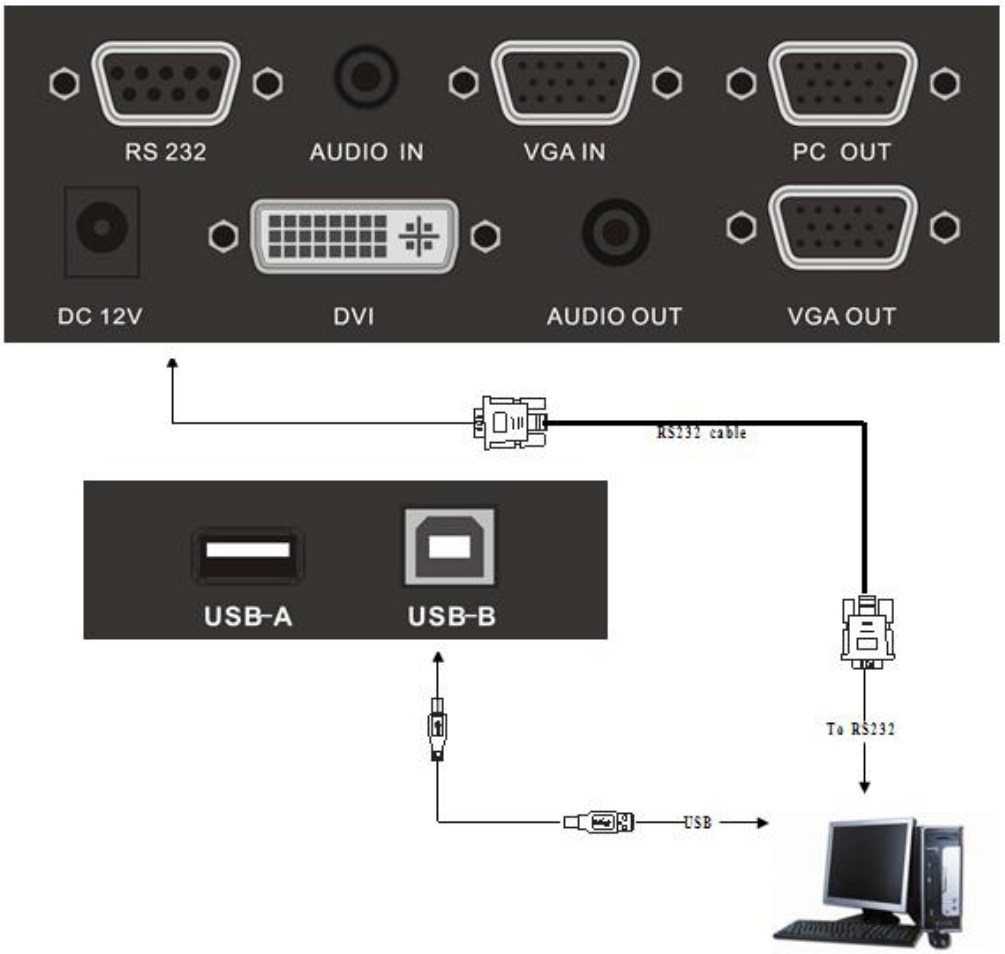
14. **Zoom+/-**: Image zoom in and zoom out control.

15. **Split**: Split screen, enable the comparison between the frozen image and live image.
16. **Bri+/-**: Image brightness adjustment.
17. **Frz**: Freeze/unfreeze the image
18. **Fc+/-**: Adjust focus manually, focus far and focus near.
19.

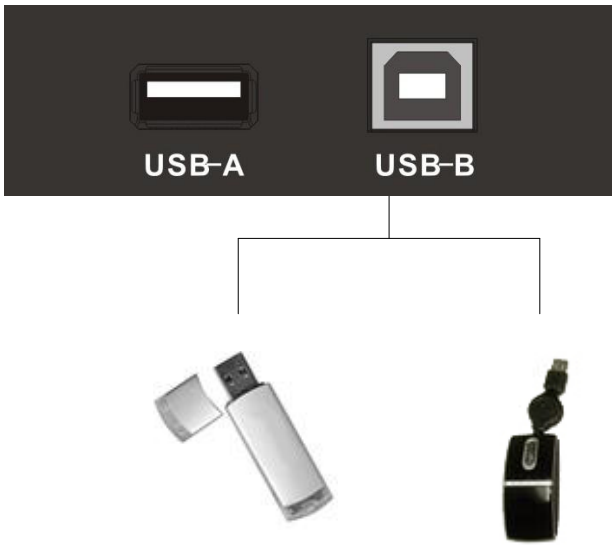
: Rotate the image by 90^{o}, 180^{o}, 270^{o}.
20. **Sharp+/-**: Adjust sharpness of the image.
21. **Neg**: Switch the image between positive and negative colors.
22. **PIP**: Active the Picture in Picture function. Press PIP, it will appear the saved picture, then select on picture for PIP picture.
23. **T/P**: Switch the output image between the text mode and picture mode.

6. CONNECTIONS

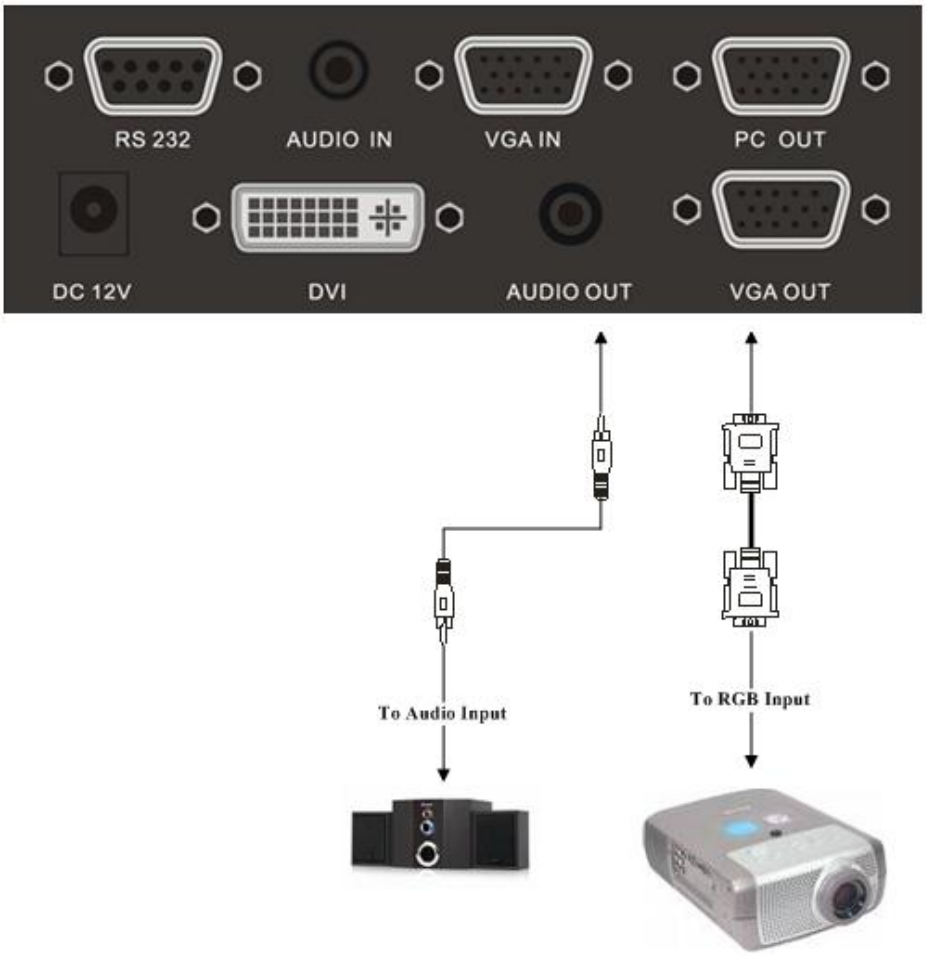
6.1. COMPUTER CONNECTION



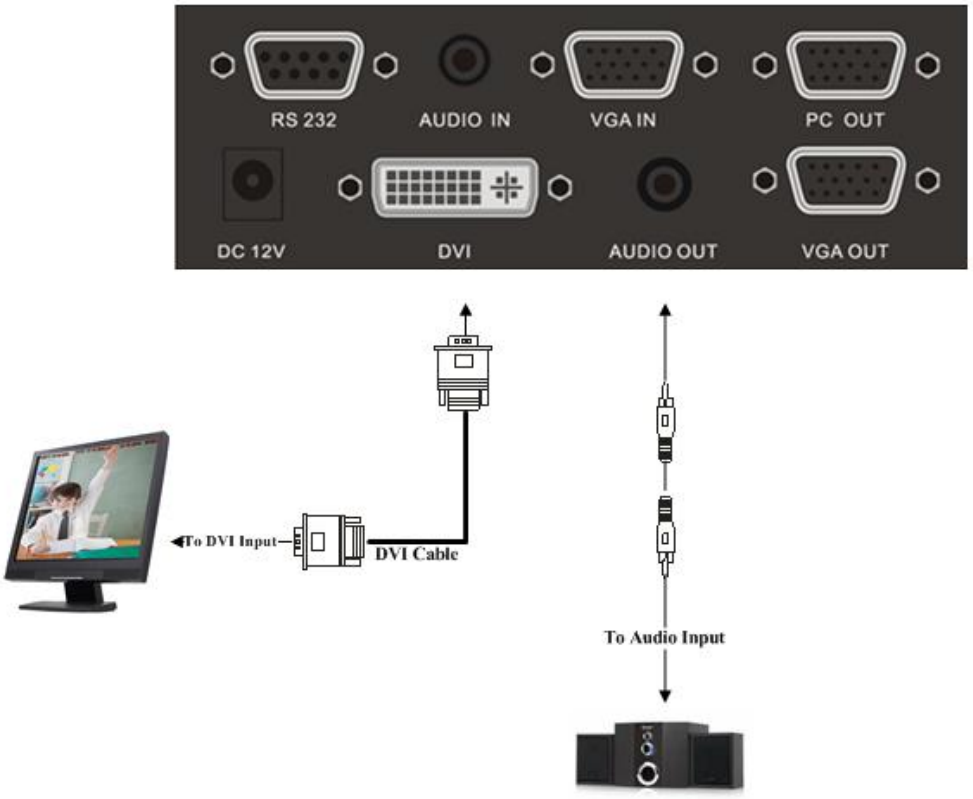
6.2. USB-A CONNECTION



6.3. VGA OUTPUT CONNECTION



6.4. DVI OUTPUT CONNECTION



7. COMMUNICATE WITH COMPUTER

7.1. COMPUTER REQUIREMENTS

The PC's hardware and software configurations shall not be less than the following requirements：

Operating system: Windows XP

CPU: 1.8 GHz

Physical memory: 512M

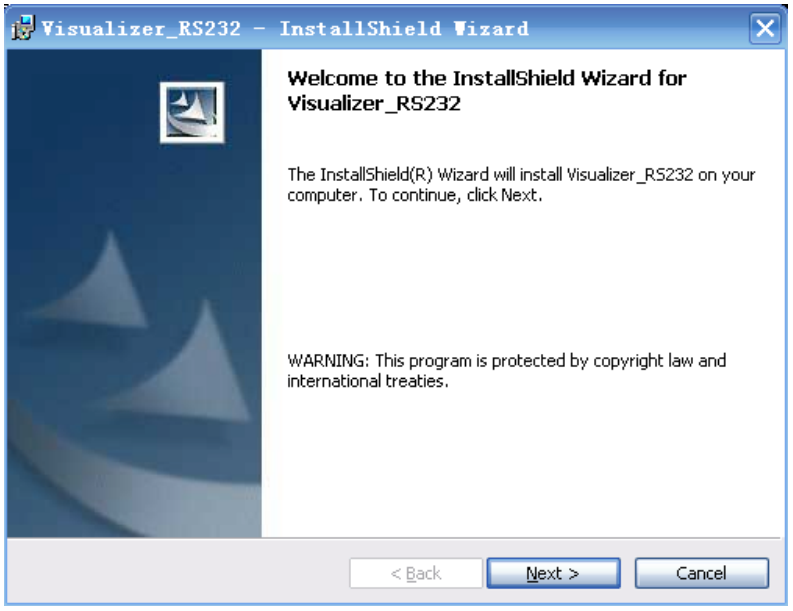
Video memory: 64M

7.2. CONTROL VIA RS232

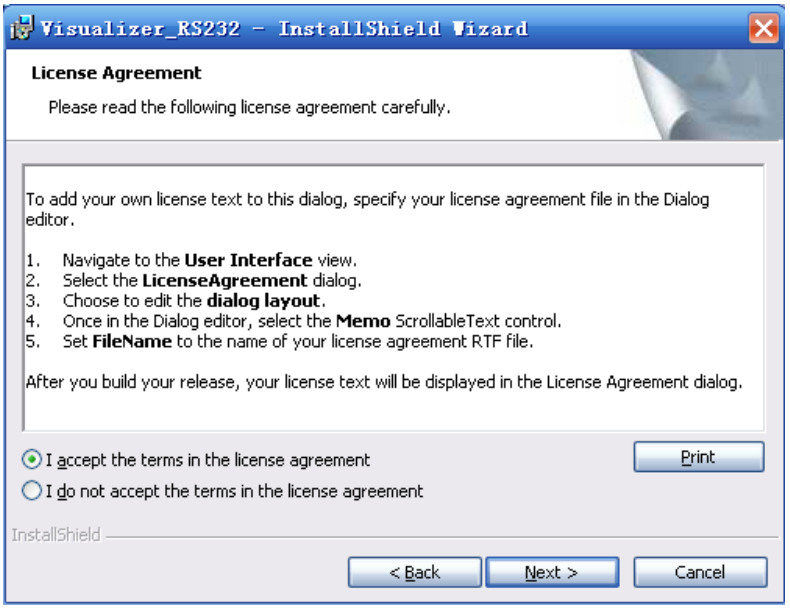
PV 700ST can be controlled from a computer via RS232.

1. Double click the RS232 software in provided CD to run the install shield wizard.

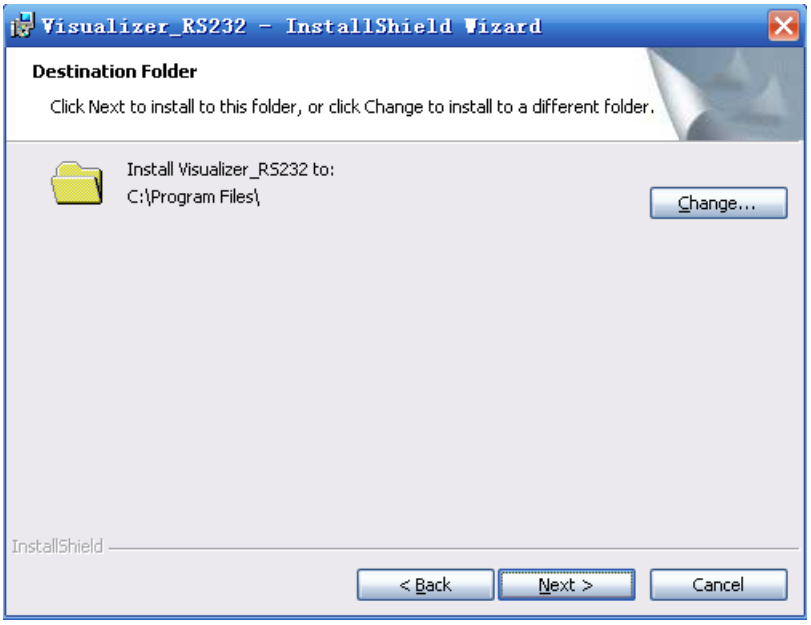
Then you will see the software setup window:


Visualizer_RS232 - InstallShield Wizard
Welcome to the InstallShield Wizard for Visualizer_RS232
The InstallShield(R) Wizard will install Visualizer_RS232 on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

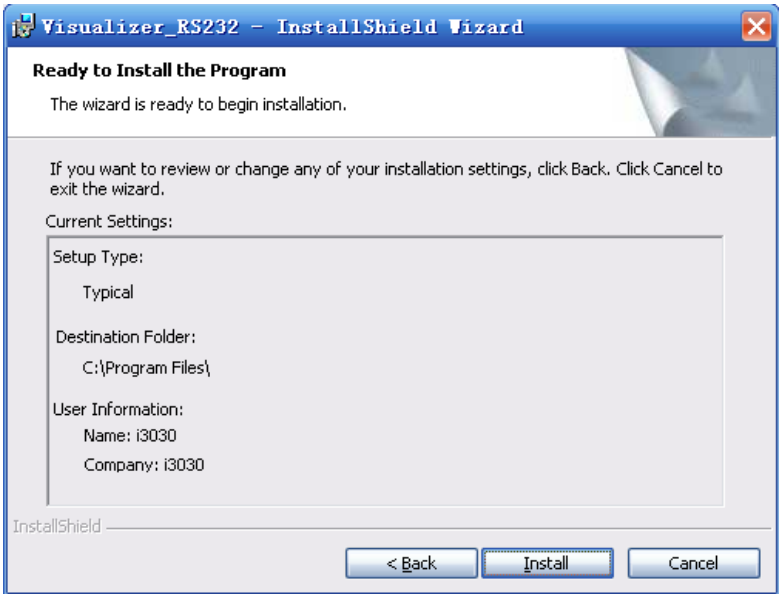
Read terms, select *"I accept the terms in the license agreement*" Click *Next*:


Visualizer_RS232 - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
To add your own license text to this dialog, specify your license agreement file in the Dialog editor.
1. Navigate to the User Interface view.
2. Select the LicenseAgreement dialog.
3. Choose to edit the dialog layout.
4. Once in the Dialog editor, select the Memo ScrollableText control.
5. Set FileName to the name of your license agreement RTF file.
After you build your release, your license text will be displayed in the License Agreement dialog.
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

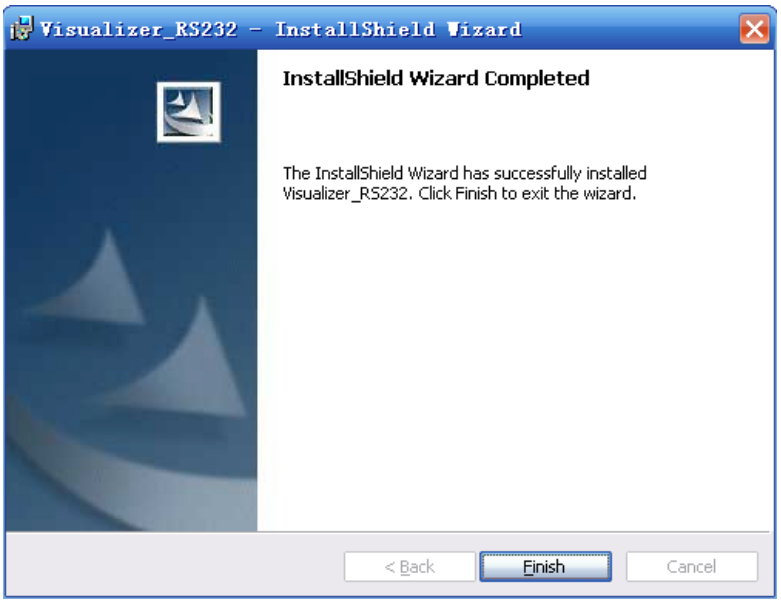
Click *Change* to change the installation directory if needed, then click *Next*:



Click *Install* to install the software to the computer:



Click Finish, the software installation is complete:


Visualizer_RS232 - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Visualizer_RS232. Click Finish to exit the wizard.
< Back
Finish
Cancel

2. Connect the computer to the PV 700ST with a RS232 cable, turn on the power of PV 700ST.

3. Double click on or click *start->All Programs->Visualizer_RS232-> Visualizer_RS232.exe* to run the RS232 software, you will see the icon on the task bar and the control interface on the top right of the screen:

: Zoom+

: Zoom-

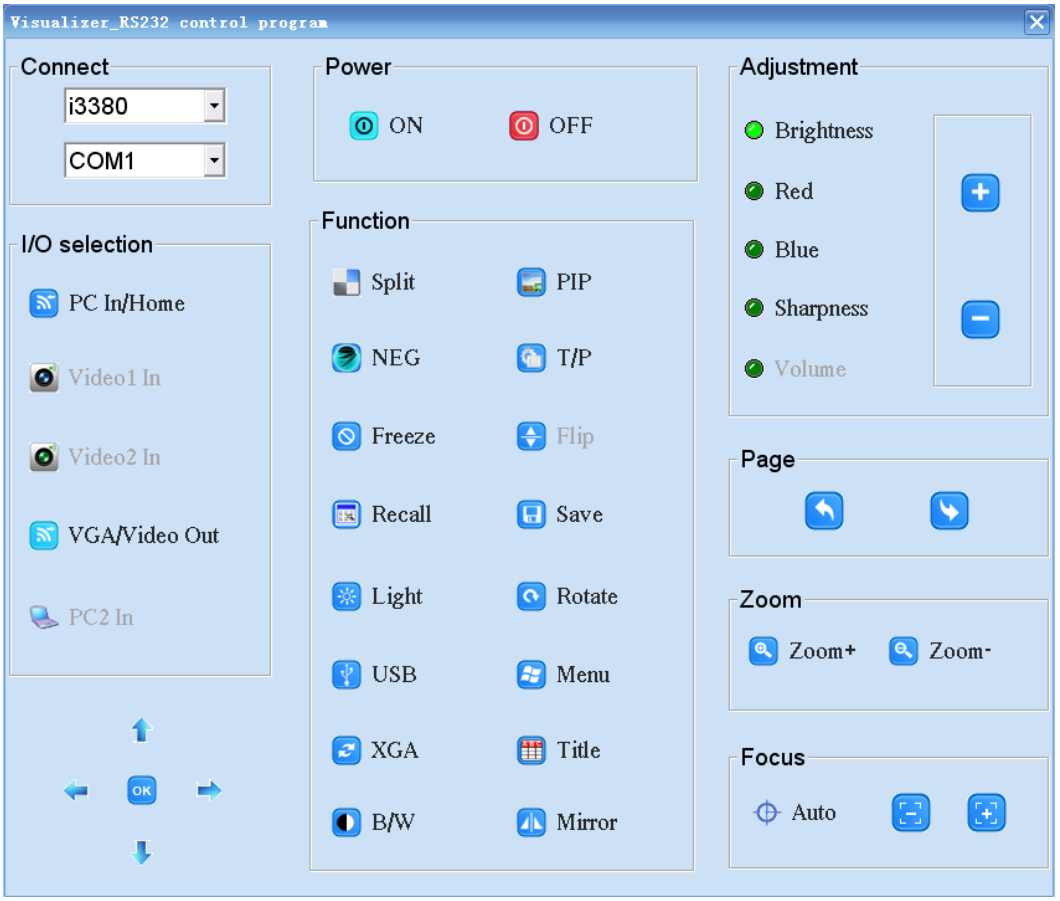
: Auto

: Display all functions

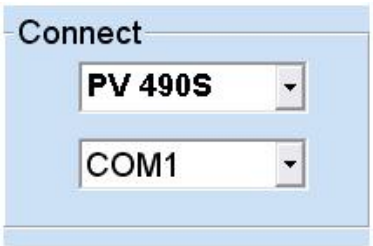
: Minimize

: Close

4. Click on , you will see the following control panel.



5. Properly set the software.



Select the corresponding model number

Select the right COM port

Note:

** If the selected model does not have certain functions, the corresponding buttons in the software interface are displayed in light gray and are not clickable.*

** All models require 15 seconds start-up time to start the software.*

6. Button instruction

Button	Function
Power On	Power on the unit
Power Off	Stand by
PC In/Home	Switch between PC and Visualizer inputs
VGA /Video Out	Switch between VGA and Video outputs
F reeze	Image Freeze
L ight	Toggle between arm light and no light
Brightness+	Increase the brightness
Brightness-	Decrease the brightness
Focus+	Focus far
Focus-	Focus near
Zoom+	Zoom in
Zoom-	Zoom out
Page+	Page up
Page-	Page down
Red+	Increase the red hue
Red-	Decrease the red hue

Blue+	Increase the blue hue
Blue-	Decrease the blue hue
S harpness+	Increase the sharpness
S harpness-	Decrease the sharpness
A uto	Auto focus, brightness and color
S ave	Save image
Recall	Recall saved images
NEG	Switch between negative and positive image modes
B/W	Switch between color and black/white modes
S plit	Split screen
M irror	Mirror image
T/P	Switch between text and image modes
Rotate	Rotation
P IP	Picture in picture
XGA	Switch between SXGA, XGA, and WXGA output modes
E nter	Enter
U p	Up
D own	Down
L eft	Left
Right	Right

USB	USB function selection
T itle	Title freeze
M enu	Menu

7.3. USB FUNCTION

7.3.1. USB-A

USB-A connector can be used to communicate with a USB mouse, a USB drive, or other USB slave device.

1. USB Mouse
   The USB mouse will be automatically activated when pluged into the USB-A connector of PV 700ST, you can use it to annotate on the image.

2. USB Drive
   - Connect a USB drive to PV 700ST, then press **Recall** button to access the USB drive.
   - Use the left and right arrows to exit or enter a folder.
   - Use the up and down arrows to select an image.
   - Press **Menu Enter** to display the selected image.
   - Press **Recall** button to exit.

7.3.2. USB-B

7.3.2.1. COMPUTER REQUIREMENTS

Visualizer_USB Camera software is an application that allows users to capture images, preview and record video under the Windows operating systems.
Visualizer_USB Camera software runs on MS Windows XP, Windows 7, and Vista operating systems. The minimal requirements for the computer hardware are:

Operating system: Windows XP

CPU: 1.8 GHz

Physical memory: 512M

Video memory: 64M

7.3.2.2. PREPARATION FOR INSTALLATION

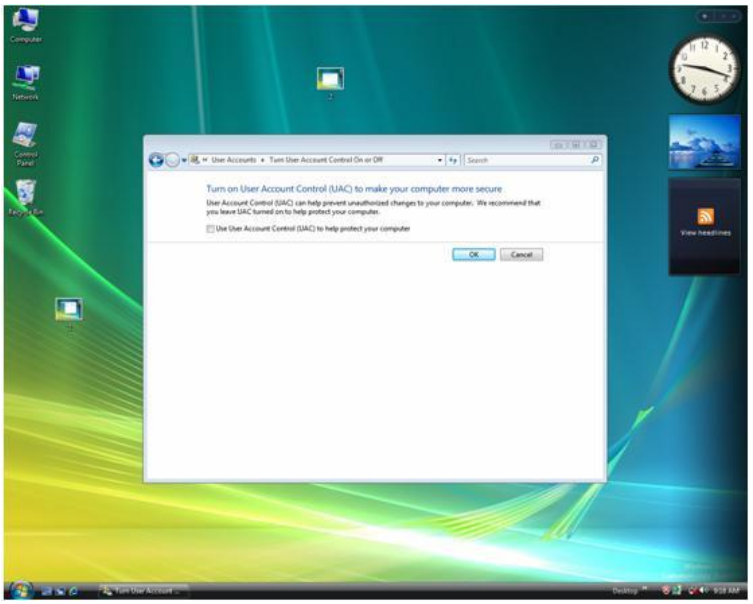
To install and uninstall, please login in as system administrator, otherwise, the install/uninstall will fail.
Please connect the unit to the PC before starting installation.
Please select the right software to install: Visualizer_USB(x32): Windows XP, 32bit. Visualizer_USB(Windows7 x64): Windows 7, 64bit.

Visualizer_USB(Vista x64): Windows Vista, 64bit.

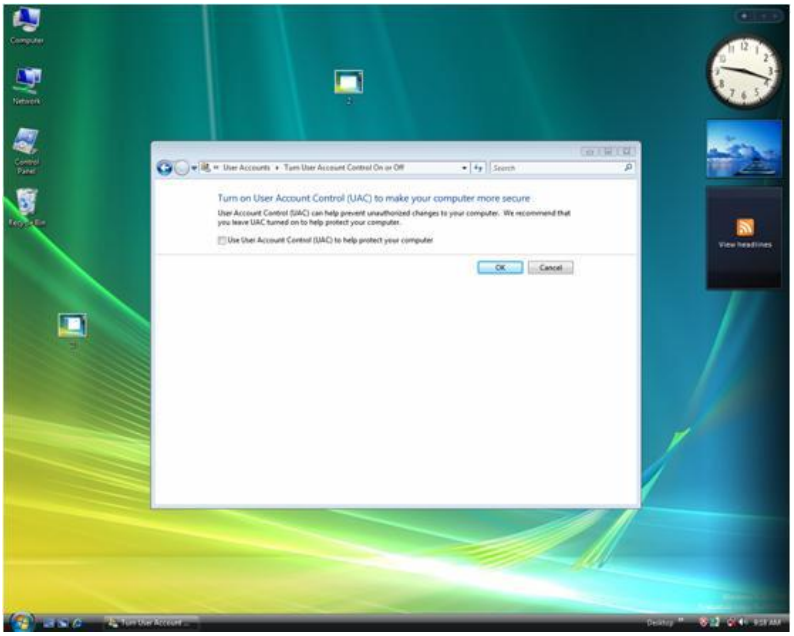
For Vista system, please do not choose "Use User Account Control (UAC) to help protect your computer", follow the step to complete the setting:

1. Open the control panel, then click User accounts:

2. Click on "Turn User Account Control on or off", you will see:

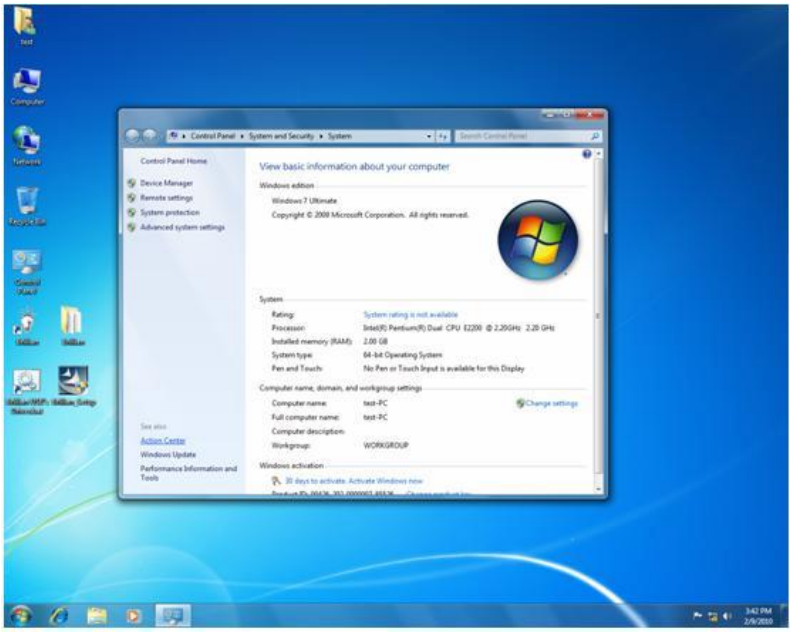


3. Do not tick the option “Use User Account Control (UAC) to help protect your computer”:

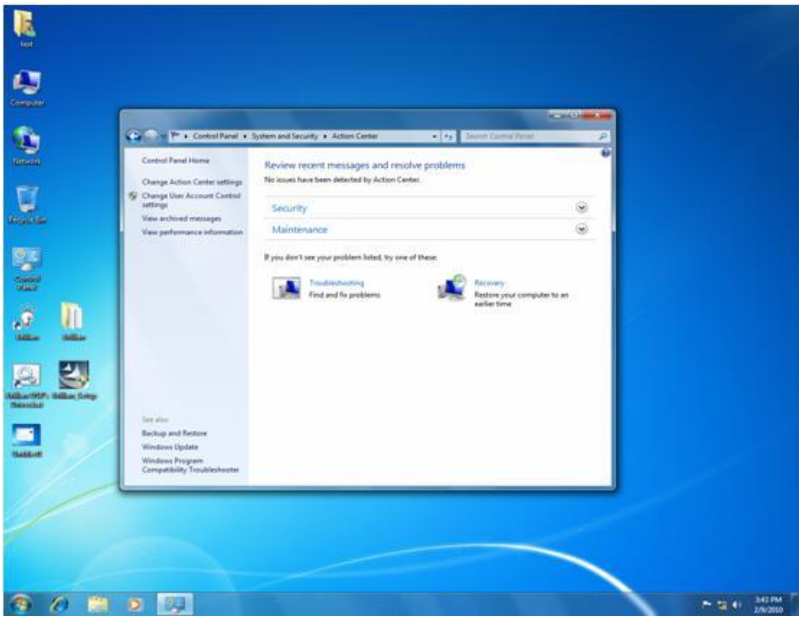

Turn on User Account Control (UAC) to make your computer more secure
Use User Account Control (UAC) to help protect your computer
OK
Cancel

For Windows 7, please change the User account control setting to Never Notify. Follow the step to complete the setting:

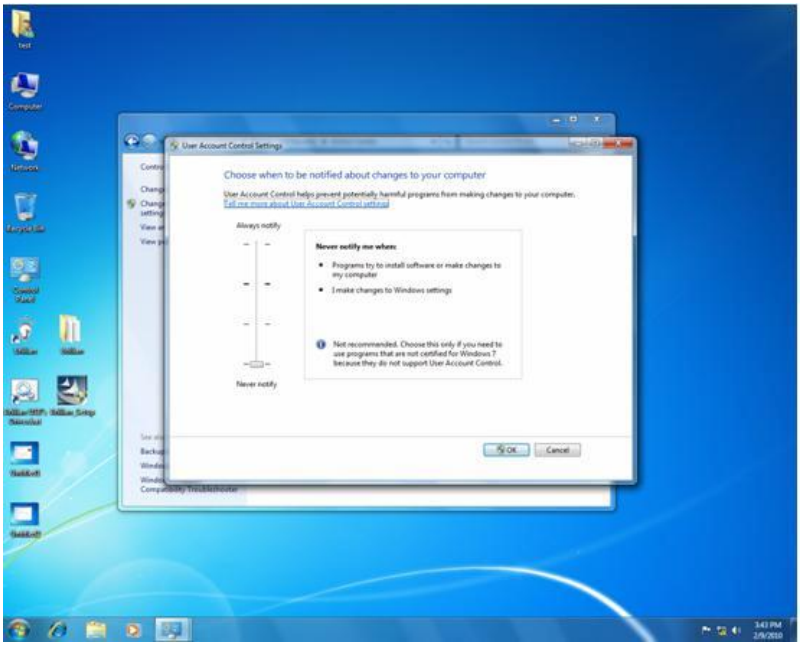
1. Click on the right key of the mouse, choose properties:



2. Click on Action center:



3. Click on Change User Account Control Setting, then choose Never notify.

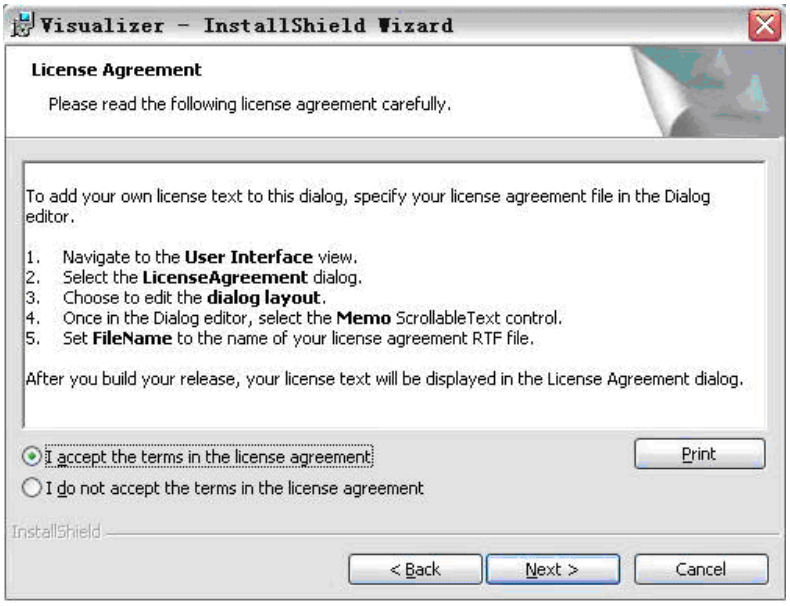

User Account Control Settings
Choose when to be notified about changes to your computer
User Account Control helps prevent potentially harmful programs from making changes to your computer.
Tell me more about User Account Control settings
Always notify
Never notify me when:
Programs try to install software or make changes to my computer
I make changes to Windows settings
Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do not support User Account Control.
Never notify
OK
Cancel

7.3.2.3. SOFTWARE INSTALLATION

Double click to run the software installation package, the following dialogue appears, click "Next":

Visualizer - InstallShield Wizard
Welcome to the InstallShield Wizard for Visualizer
The InstallShield(R) Wizard will install Visualizer on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

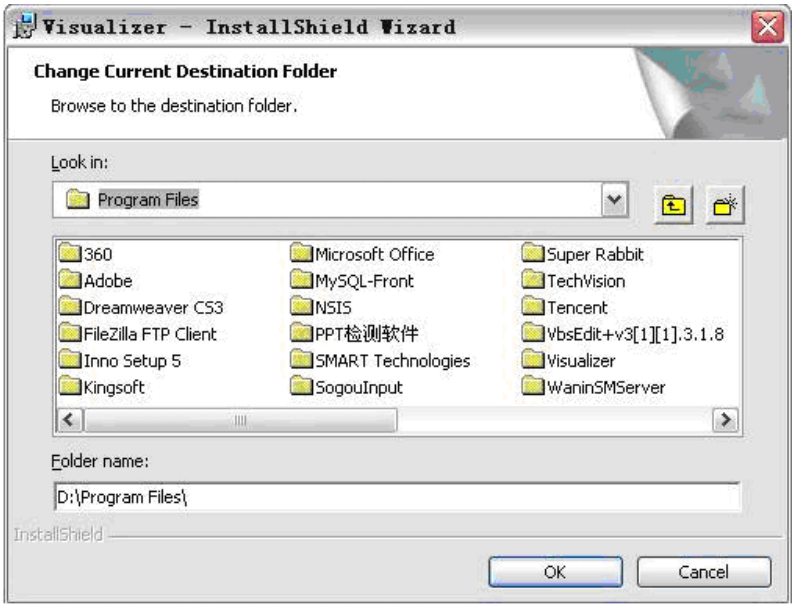
Read the terms, select "I accept the terms in the license agreement." Click "Next", as the following figure.


Visualizer - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
To add your own license text to this dialog, specify your license agreement file in the Dialog editor.
1. Navigate to the User Interface view.
2. Select the LicenseAgreement dialog.
3. Choose to edit the dialog layout.
4. Once in the Dialog editor, select the Memo ScrollableText control.
5. Set FileName to the name of your license agreement RTF file.
After you build your release, your license text will be displayed in the License Agreement dialog.
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

The following dialogue box appears, click "Next":

The default installation directory is Program Files, C: \ Program Files \, you can select a different installation directory, as shown:

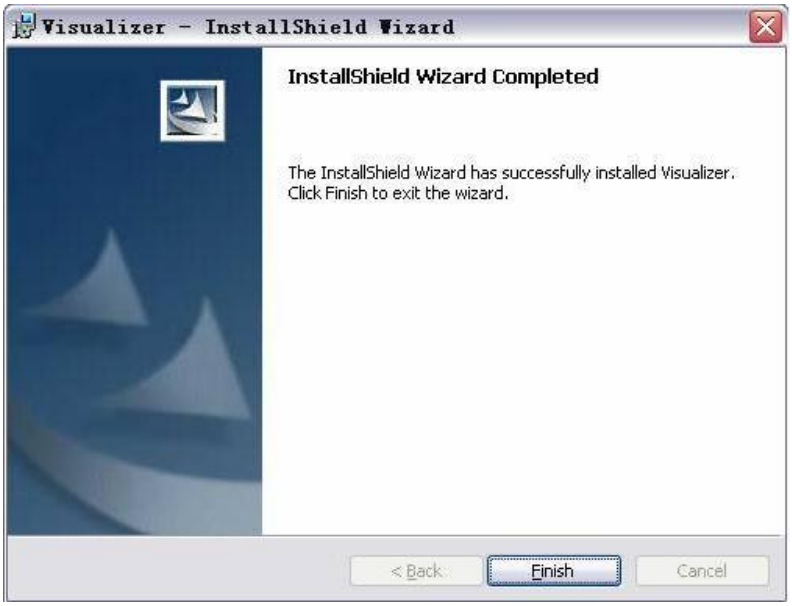
Click on "Change" to change the directory, as shown:



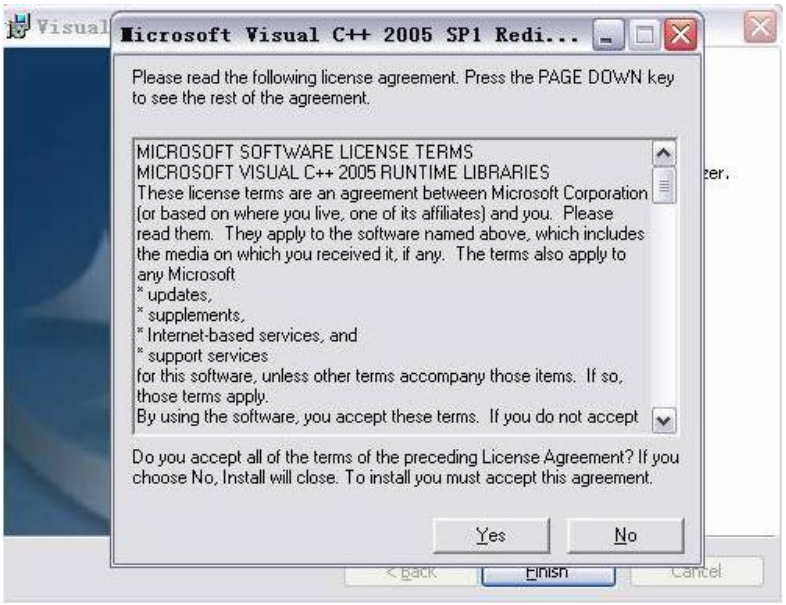
Click on "OK", the following figure appears. Click "Next".

Click on "Install" to complete installation, as shown:

Click on "Finish" to complete the installation, as shown:


Visualizer - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Visualizer. Click Finish to exit the wizard.
< Back
Finish
Cancel

Then you will see the following interface, which is an installation package for 2005 environment. If your PC already has this installed, click on "No" to exit, otherwise, click on "Yes" to install it.


Microsoft Visual C++ 2005 SP1 Redi...
Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL C++ 2005 RUNTIME LIBRARIES
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
* updates,
* supplements,
* Internet-based services, and
* support services
for this software, unless other terms accompany those items. If so, those terms apply.
By using the software, you accept these terms. If you do not accept
Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement.
Yes
No
< Back
Finish
Cancel

7.3.2.4. START THE SOFTWARE

Note: To use the software, the document camera's USB mode has to be set to USB Video mode. Please follow the instruction below:

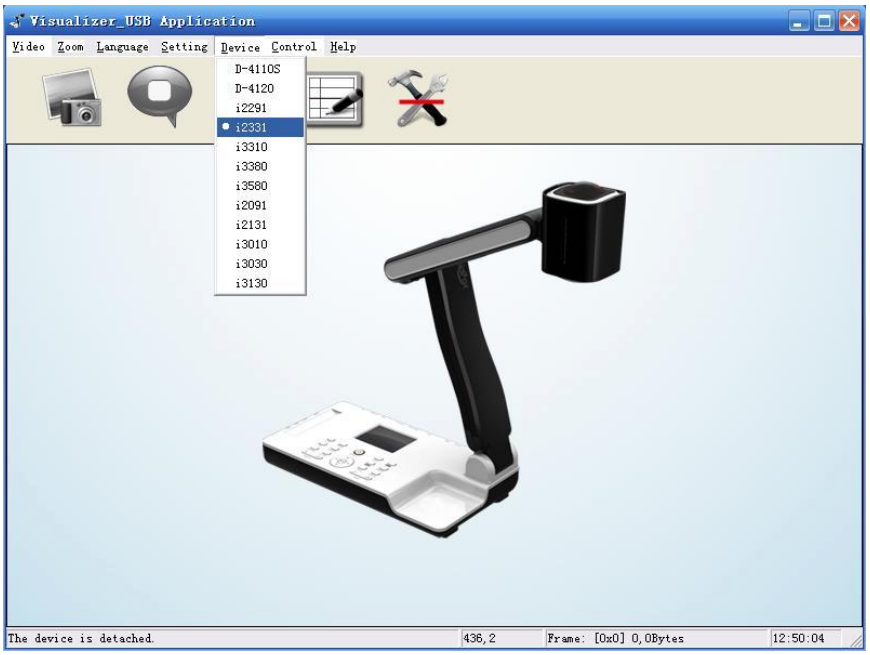
A. Make sure the USB cable is disconnected from the unit.

B. Press the USB button on the remote, a dialog box appears on the screen, under which you will see USB disk or USB video, use the arrow keys on the remote or control panel to select the USB video mode.

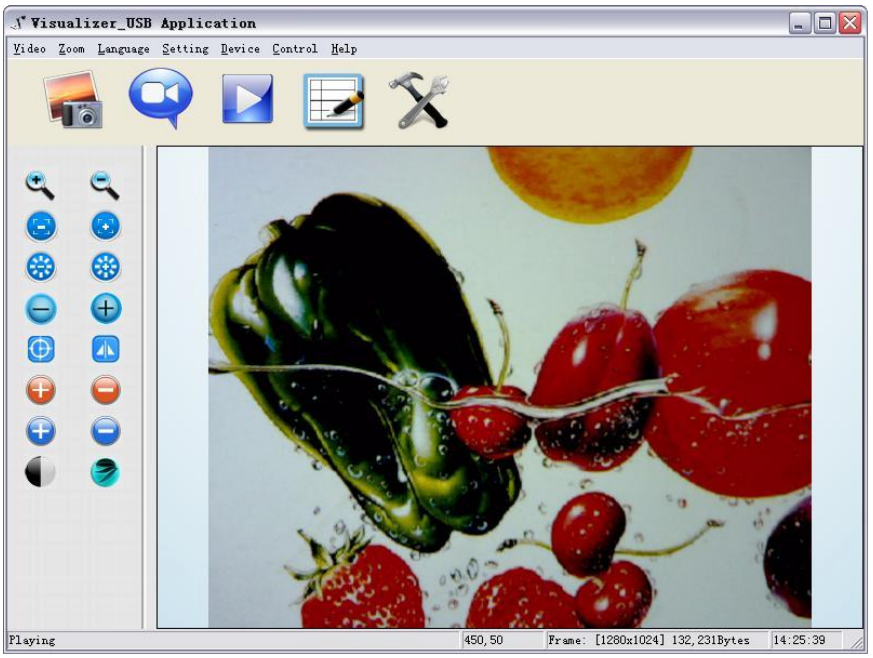
The remote and the front panel are inactive while the software is in use.

Double click on the short cut

on the desktop, then click on *Device*, select the right model number, see below:



Then click on , or select Video->Play, you will see the interface:



7.3.2.5 IMAGE CONTROL

- **Zoom in and Zoom out**

Zoom In （Ctrl+I）: Left-click the Zoom In command button to enlarge the image.

Zoom Out（Ctrl+O）: Left-click the Zoom Out command button to shrink the image.

- **Focus adjustment**

F ocus Far（Ctrl+R）: Left click the Focus Far command button to focus far.

Focus Near（Ctrl+N）: Left click the Focus Near command button focus near.

- **Image Brightness adjustment**

Bright More （Ctrl+B）: Left click the Bright More button to increase the brightness.

Bright Less （Ctrl+L）: Left click the Bright Less button to reduce the brightness.

- **Sharpness adjustment**

Sharp More: Left click the Sharp More button to increase the sharpness.

Sharp Less: Left click the Sharp Less button to reduce the sharpness.

- **Auto focus**

Auto （Ctrl+U）: Left click the Auto button to auto adjust the focus.

- Mirror adjustment

Mirror（Ctrl+M）: Left click the Mirror button to adjust image to normal mirror, horizontal mirror, vertical mirror, and horizontal /vertical mirror.

- **Image red hue adjustment**

Red More: Left click the Red More button to increase the red hue.

Red Less: Left click the Red Less button to reduce the red hue.

- **Image blue hue adjustment**

Blue More: Left click the Blue More button to increase the blue hue. Blue

Less: Left click the Blue Less button to reduce the blue hue.

- **Image black and white/ color adjustment**

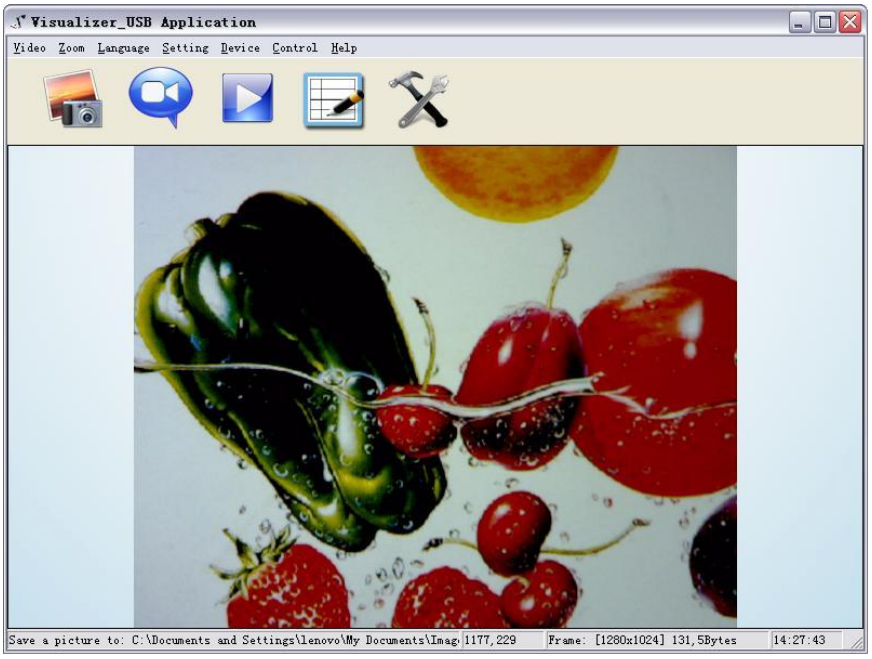
Mono/Color（Ctrl+K）：Left click the Mono/color button to toggle between the black-white and color modes.

- **Positive and negative film images**

Neg（Ctrl+G）：Left click the Neg button to toggle between the positive and negative modes.

7.3.2.6. IMAGE CAPTURE AND VIDEO RECORDING

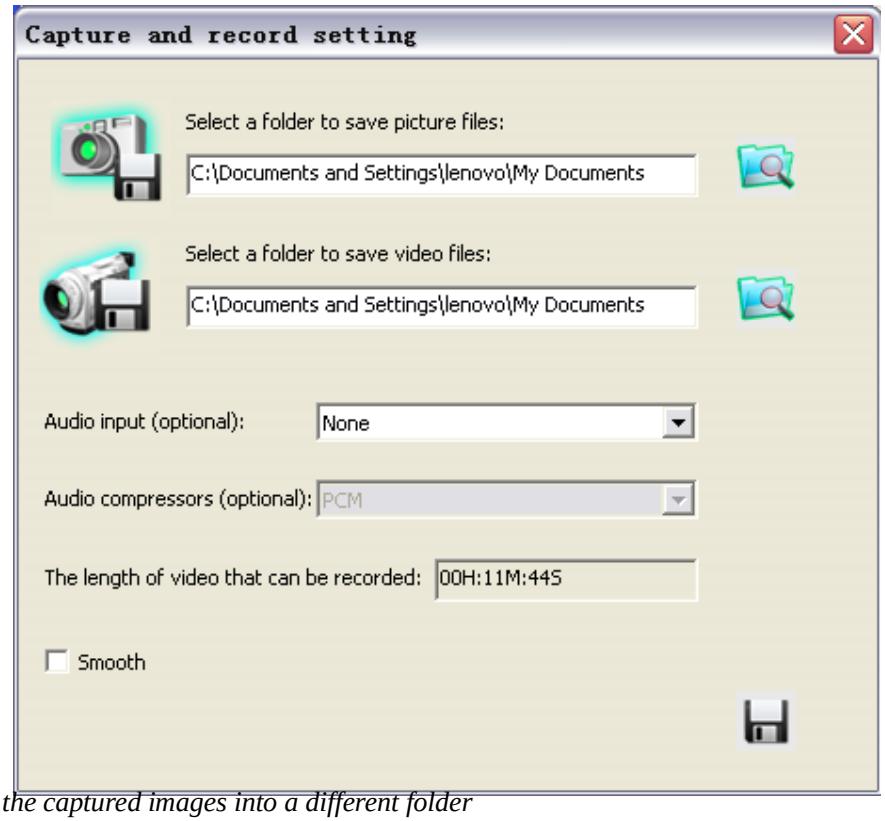
Left click on to capture images. The captured images will be automatically saved into the default destination folder. The path and file name are displayed in software status bar on the bottom of the window. Shown below:



Left click on to start recording. The setting button will changes to and does not work. The detailed information is displayed on the software status bar in the bottom of the window. The video is automatically saved in the default folder or pre-set folder.

7.3.2.7. SETTING

The captured images and recorded videos will be saved into the folders of Images and Videos respectively, which are created by the system automatically. To set a different path to which the image/video is be to saved, click on on the left side of the window, a pop up dialog box appears below.

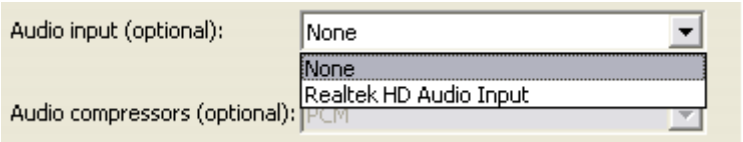


Save the captured images into a different folder

Click on the button next to the "select a folder to save picture files" text box to set the path for captured images.

Save the recorded video into a different folder and set up parameters for videos

Click on the button next to the "Select a folder to save video files:" text box to set the path for videos. You can also change the video settings. The Audio input (optional) drop down box offers the options of recording video with or without sound. Shown below:

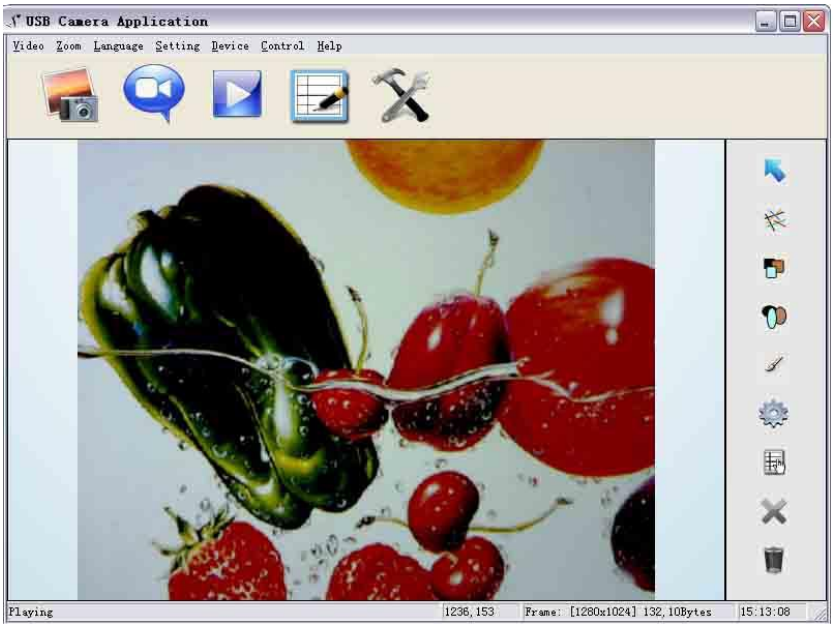


The length of video that can be recorded box displays the longest recording time for videos to be saved in the preset path. Shown below:

Click on **Save** to complete.

7.3.2.8. IMAGE MODIFY

Click on , you will see the interface:

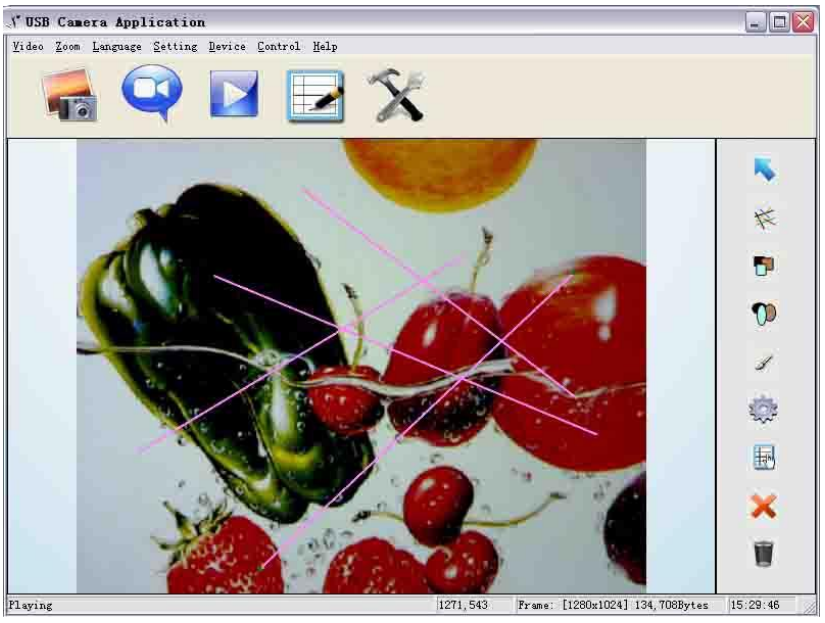


- *Grapic selection and move*

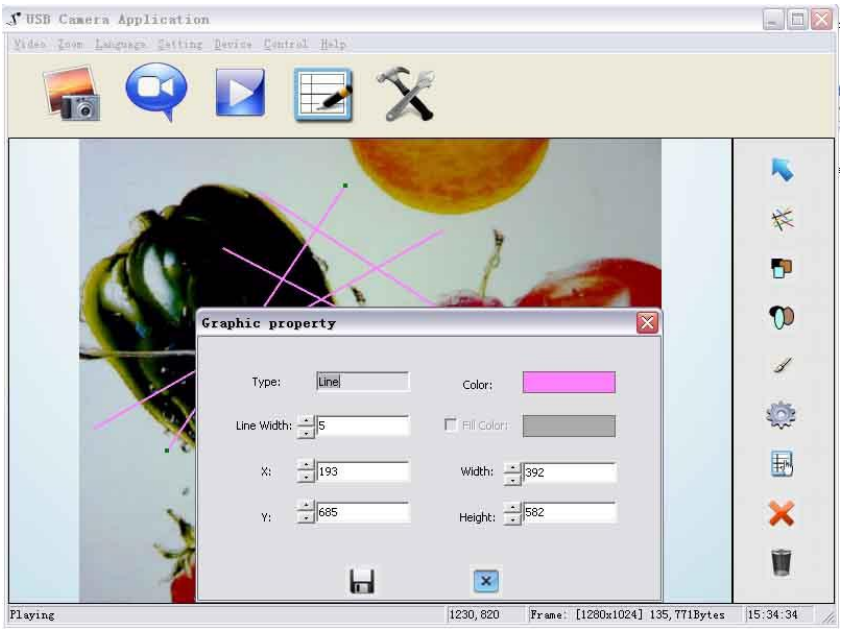
  Click on to choose a line, circle, rectangle or curve that placed in the image, then move to another place.

- *Line*

  Click on to place a beeline in the image, shown as below:



Click on to change the setting of the chosen line:



Line width: change the width of the line.

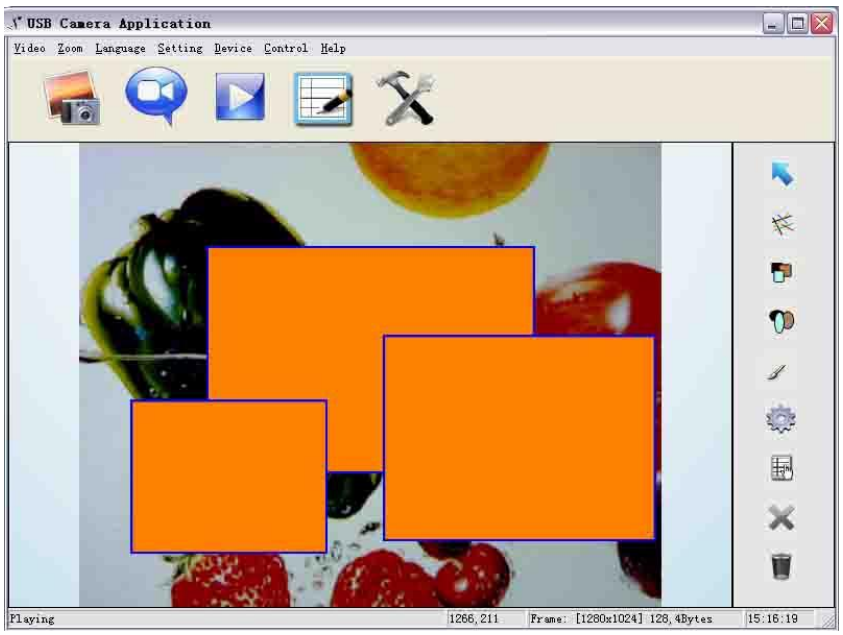
X, Y: change the position of the line.

Color: change the color of the line.

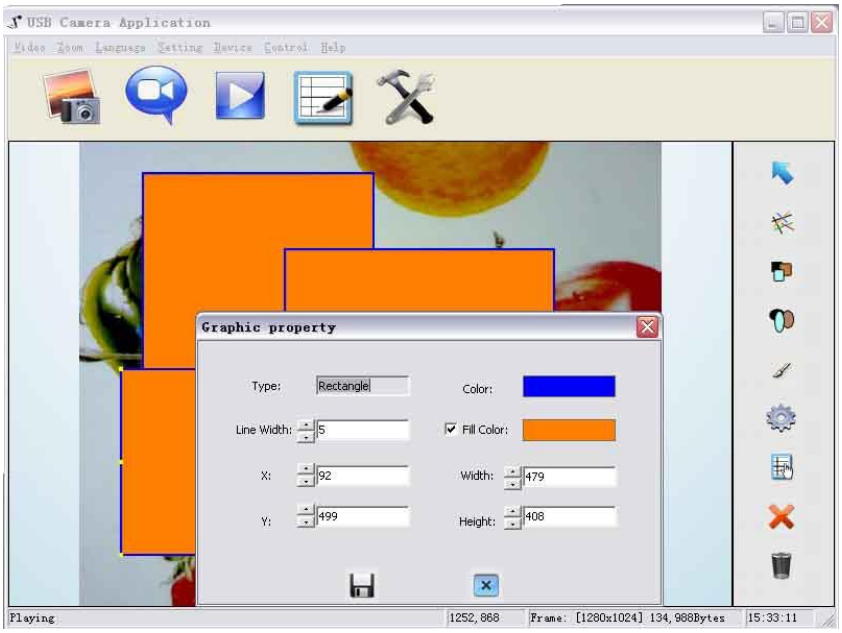
Width, Height: Change the angle of the line.

- *Rectangle*

Click on to place a rectangle in the image, shown as below:



Click on to change the setting of the chosen rectangle:



Line width: change the line width of the rectangle.

X, Y: change the position of the rectangle.

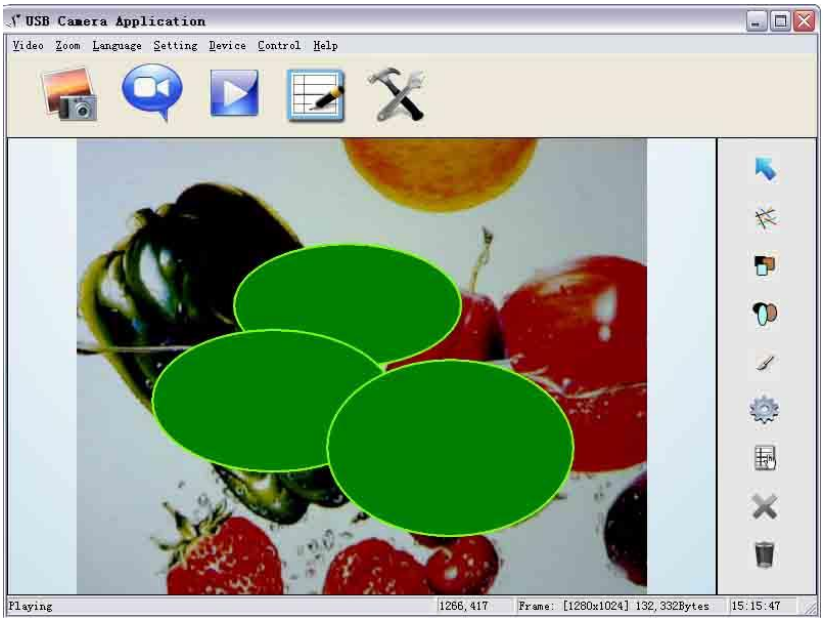
Color: change the line color of the rectangle.

Fill Color: Tick it to fill color in the rectangle.

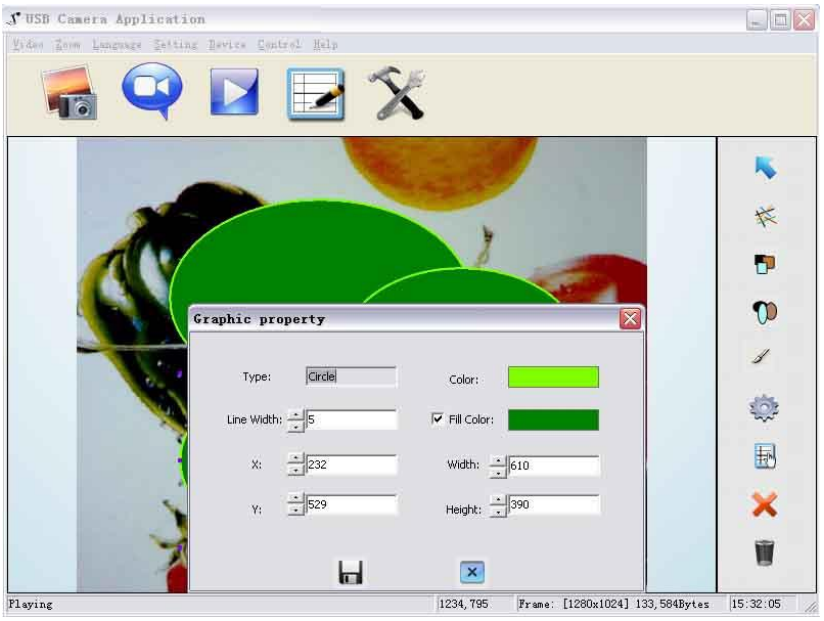
Width, Height: Change the shape of the rectangle by changing the angle of two adjacent lines of the rectangle.

- *Circle*

Click on to place a circle in the image, shown as below:



Click on to change the setting of the chosen circle:



Line width: change the line width of the circle.

X, Y: change the position of the circle.

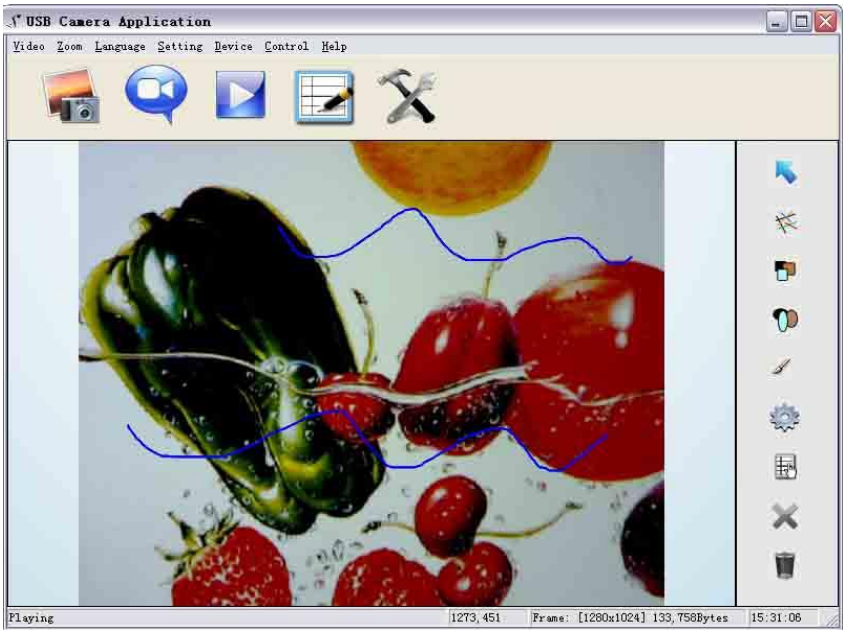
Color: change the line color of the circle.

Fill Color: Tick it to fill color in the circle.

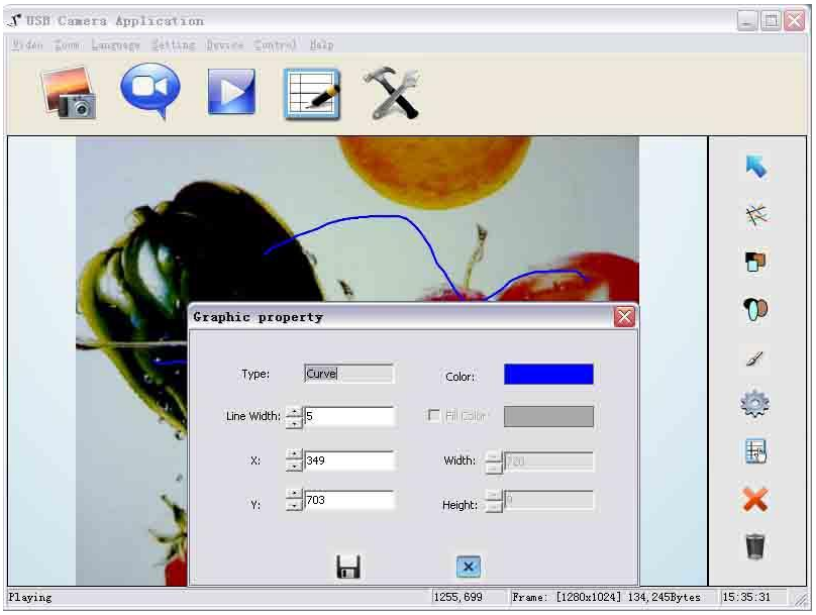
Width, Height: change the size of the circle.

- *Curve*

Click on to place a curve in the image, shown as below:



Click on to change the setting of the chosen curve:



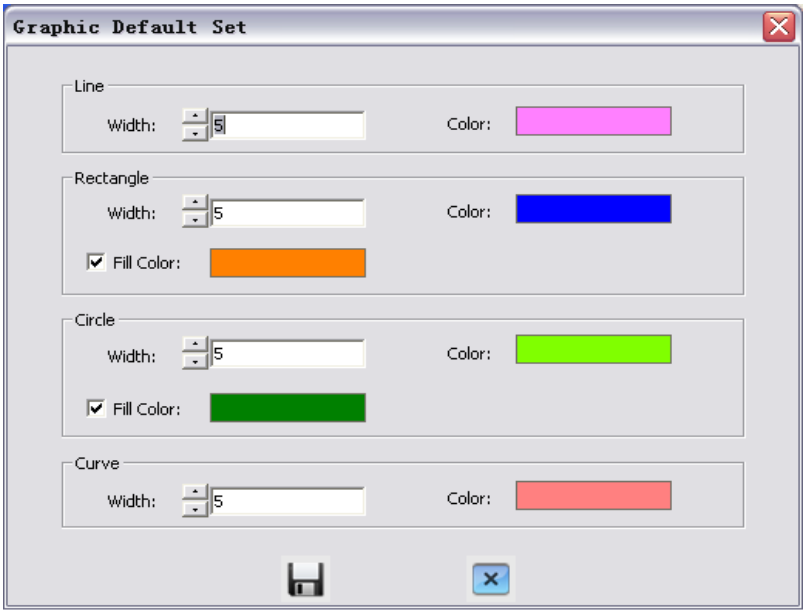
Line width: change the line width of the curve.

X, Y: change the position of the curve.

Color: change the line color of the curve.

- *Graphic default setting*

Click on to change the setting of the graphic:



- *Graphic delete*

Click on to delete the chosen graphic.

Delete all graphics

Click on to delete all graphics placed in the image.

8. FEATURES

LIGHT

Press **“LAMP”** to turn on or turn off the light.

ZOOM IN AND ZOOM OUT

Press "**ZOOM+"or "ZOOM-"**

POSITIVE/NEGATIVE CONVERSION

Press the **Neg** button on the remote control, the output image will be converted to negative color. Press it again, the output image will be converted back to original color.

FOCUS ADJUSTMENT

When the PV 700ST is turned on the focus automatically adjusts to the stage, it is usually not necessary to re-adjust the focus if you are only working with flat materials (text, photos, etc.).

Only 3D objects require a focus adjustment. Press the **“AUTO”** button to auto focus. Press the "**FOCUS+"** or **"FOCUS-"** button to focus manually.

BRIGHTNESS ADJUSTMENT

If the image effect is not satisfactory, you can adjust the brightness to get a better image effect. Use the **“BRIGHT+”** or **“BRIGHT-”** button to adjust the brightness.

WHITE BALANCE ADJUSTMENT

Each time the lighting condition changes, the user should adjust the white balance of the image. Press the **“AUTO”** button to adjust the white balance automatically.

IMAGE FREEZE

The freeze function allows you to discretely prepare the next image without interrupting current presentation. Press "**Freeze"** on remote control to freeze and unfreeze the image.

IMAGE ROTATE

Press “**Rotate**” on the control panel to rotate the image by 90^{o}, 180^{o}, 270^{o}.

SPLIT SCREEN

Press **“SPLIT”** to compare two images or compare two different views of one object side by side.

TITLE FUNCTION

Press “**TITLE**” to enable the title function.

PICTURE IN PICTURE FUNCTION

Press “PIP” on remote control to active the picture in picture function.

IMAGE SAVE

The PV 700ST offers the opportunity of storing 400 images on board. You can recall them by just pressing one of the numerical buttons on the front panel or remote control. Press"**SAVE"** to capture the image displayed.

IMAGE RECALL

By pressing **“RECALL”,** all saved images are displayed in the thumbnail index mode for easy

selection.

RGB INPUT SWITCH

Press the **"PC | CAM"** to select the VGA input signal instead of the signal from camera.

OUTPUT SWITCH

Use **"OUTPUT"** to select DVI signals output instead of VGA signal.

USB IMAGE CAPTURE AND VIDEO RECORDING

The USB port can be used to capture still images from the PV 700ST into a computer. In this way, the PV 700ST can be used as a 3-D scanner for your computer.

RS232 CONTROL

The RS232 terminal allows you to integrate the PV 700ST into any sophisticated central control system. RS232 also enable you to control the PV 700ST via computer.

9. SPECIFICATION

Model	PV 700ST
Sensor	1/3" CMOS
Pixels	2Megapixel
Zoom	9x optical, 12x digital
Frame rate	15
Shooting area	Max: 13.5" x 10.6" /34.3 cm x 26.9 cm Min: 0.1" x 0.1"/0.3 cm x 0.3 cm
Focus	Auto/manual
Output resolution	XGA, SXGA,720P
Resolution(Horizontal)	≥750 TV lines
White balance	Auto/manual
Color adjustment	Yes
Brightness adjustment	Yes
Negative&Positive conversion	Yes
Image capture	Yes, 400 NON-volatile images
Video recording	Yes(via USB)

Image rotation	Yes
Image split	Yes
Image freeze	Yes
Picture in picture	Yes
Title	Yes
OSD	Yes
Menu	Yes
Inputs	VGA ×1, AUDIO ×1
Outputs	DVI×1,VGA ×2, AUDIO ×1
USB2.0	Slave×1(USB camera), Host×1
RS232	x1(computer controllable)
Remote control	Yes(360°controllable)
Light source	LED light box
Kensington lock	Yes
Operating temperature	32°F ~113°F
Dimensions	Folded:12.6"×7.5"×5.6", Setup:15.7"×7.5"×19.7"
Power supply	12V DC power adapter
Weight(net)	6.2lbs/2.8kg

10. TROUBLE-SHOOTING:

Symptoms	Possible causes/counter-measures
No image	1. Power cord is not properly connected. 2. Cables are not properly connected. 3. Power switch is not turned on. 4. Change the output resolution.
Image bending	1. Camera not in right position, adjust the camera. 2. Distortion of LCD display, press the “Auto adjust” of the LCD.
Out of focus or blurring image	1. The object is too close to the lens. 2. Focus is on the top point of zoom, press ZOOM-. 3. Auto-focus is not on: press AUTO again. 4. Fog on the lens in damp climate. It will disappear gradually when the equipment warms up.

If the problem still remains after checking the above, consult your dealer or authorized service personnel.

11. PACKING LIST

Item	Quantity
Power cord	1
Power adaptor(12V/2A)	1
VGA cable	1
Mini jack audio cable	1
Switch cable	1
USB cable(2.0)	1
Remote control	1
User manual(CD)	1
Stylus	1

12. TECHNICAL SUPPORT

Wanin USA is committed to providing highest possible stand of customer service. We can be reached:

By Phone

Call us at 1-877-369-3130. Our technical support staff provides technical assistance from 9:00AM through 5:00PM Pacific Standard Time, Monday through Friday. Please gather the following information before calling:

- Product model name(s) and numbers
- Product serial number(s)
- Detailed questions or problem descriptions.

Online

Technical support is also available online at Wanin USA's web site at www.waninusa.com. You can enter your questions and concerns through our online form, email us at support@waninusa.com.

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Fax: (732)-222-7088 | E-mail: sales@touchboards.com

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